



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**REGION 5**  
**77 WEST JACKSON BOULEVARD**  
**CHICAGO, IL 60604-3590**

SR-6J

October 1, 2021

John Wolski  
 Senior Remediation Manager  
 Raytheon Technologies - Corporate Remediation  
 9 Farm Springs Road  
 Farmington, CT 06032

**Subject:        *Review of Uniform Federal Policy - Quality Assurance Project Plan (UFP-QAPP)  
 Revision 0 (Rev 0)  
 Area 9/10 Southeast Rockford Groundwater Contamination Superfund Site  
 Rockford, Illinois***

Dear Mr. Wolski:

U.S. Environmental Protection Agency (EPA) has reviewed the above titled UFP-QAPP dated August 27, 2021, prepared by AECOM on behalf of Hamilton Sundstrand Corporation (HSC) for the Southeast Rockford Groundwater Contamination Superfund Site, Area 9/10 in Rockford, Illinois. EPA is requiring revisions per the comments below and a resubmission of the complete UFP-QAPP<sup>1</sup>. In addition to the resubmission, EPA is suggesting that responses to comments be provided with a redline (or similar) of modifications for EPA reviewer efficiency.

Please note, comments in regular print are new comments for UFP-QAPP Rev 0. If a previous comment was not addressed in Rev 0, it is repeated in italics with a comment below the italics.

**Comments**

1. UFP-QAPP Worksheet #3 & #5: Project Organization and QAPP Distribution
  - *Update to the current EPA RPM and QA reviewer (also, Sections 2.1, 2.7).*
    - Missing signature line for EPA QA reviewer
  - *Organization Chart – define what the solid line represents and what the broken line represents.*
    - In this draft, the organization chart is missing.
2. UFP-QAPP Worksheet #12: Measurement Performance Criteria Table
  - Table 12-A
    - Please provide rationale for including VOCs that are not defined as COCs in the ROD (e.g. Toluene, 1,1 DCE).
    - Where is it demonstrated that the laboratory could achieve an LOQ of 0.4 ug/L for 1,4-Dioxane? This information was not found in the laboratory SOP.
    - "Sulfide" is described as a potential analyte. In Worksheet #23, "Sulfite" is described and the method for sulfite (NJ-EGN119-NO SO3) is included in the appendix. It doesn't look

<sup>1</sup> This includes all worksheets and associated content, all field and laboratory SOPs, in UFP-QAPP format (<https://www.epa.gov/fedfac/assuring-quality-federal-cleanups>)

- like an SGS-NJ method for SM4500 is included in the appendix. Clarify which analyte and which method is required for this project and standardize throughout document.
- Table 12-A is missing TOC analysis described in Worksheet #23. Is TOC a potential analyte for groundwater for this project?
3. UFP-QAPP Worksheet #15: Project Action Limits and Laboratory-Specific Detection/Quantitation Limits (Appendix C)
    - Table 15-A1 through Table 15-A3:
      - *The project specific reporting limit for 1,4-dioxane on page 9 is 0.4 ug/L. The laboratory SOP lists their reporting limit (RL) as 130 ug/L for water matrix samples. This needs to be reconciled. What are the project specific measurement objectives for this analyte and can this laboratory meet them? Screening/action levels must be documented for 1,4-dioxane. The former is normally 0.46 µg/L<sup>2</sup>.*
      - Is LOQ in Worksheet #15 the same as the LLOQ described in the laboratory SOP?
    - Table 15-C: CAS number for Cresol missing.
  4. UFP-QAPP Worksheet #21 Project Sampling SOP References Table
    - F201 is missing from Appendix A; include in next draft.
    - F504 March 2021 version included in Appendix A. Update Worksheet #21 to reflect.
  5. UFP-QAPP Worksheet #23: Analytical SOPs  
Missing pH method description included in Worksheet #12 for leachate testing.
  6. UFP-QAPP Worksheet #29 Project Documents and Records Table
    - Sample Collection and Field Records: Define whether these are all electronic records or whether any are physical records that are converted to electronic records.
    - Laboratory Data Deliverables: Level IV data deliverables are required for submission to EPA.
  7. UFP-QAPP Worksheet #31 Planned Project Assessments Table, Worksheet #32 Assessment Findings and Corrective Response Actions, Worksheet #33 Quality Assurance Management Reports Table
    - Need to include all 3 worksheets with tables containing the information elements described in the Optimized UFP-QAPP Worksheets guidance (March 2012)<sup>3</sup>. This guidance provides examples of assessments, not required assessments.
      - Worksheet #31 describes assessments of project quality system/project quality objectives, Worksheet #32 describes how findings and corrective actions related to non-conformances identified in the assessments will be addressed, and Worksheet #33 describes QA reports generated during the project.
    - Review of Geoprobe equipment and use for soils: This is not really an assessment, probably better suited to be included with calibration information in Worksheet #22.
    - Review Field Logbooks: describe the “information” produced from these reviews and where the reviews are documented. If applicable, provide checklists defining this review.
    - COC forms: describe the “information” produced from these reviews and where the reviews are documented. If applicable, provide checklists defining this review.
    - A field audit, if performed by EPA, would be conducted by EPA QA and/or the RPM; update the table to include this potential type of assessment.

<sup>2</sup> Regional Tap Water Screening Levels <https://semspub.epa.gov/work/HQ/200055.pdf>

<sup>3</sup> Uniform Federal Policy for Quality Assurance Project Plans Optimized UFP-QAPP Worksheets (March 2012)  
[https://www.epa.gov/sites/default/files/documents/ufp\\_qapp\\_worksheets.pdf](https://www.epa.gov/sites/default/files/documents/ufp_qapp_worksheets.pdf)

- Worksheet #31 is missing any assessments of QA system and conformance to UFP-QAPP by AECOM, including readiness reviews. Include descriptions of these assessments here.
8. UFP-QAPP Worksheet #35 Data Verification Procedures
- Audit Reports, Corrective Action reports: audits and assessments are not typically included as a form of data verification. Elaborate on how they will be used for data verification or remove.
    - This information should be included in Worksheet #32.
9. UFP-QAPP Worksheet #36 Data Validation Procedures Table
- Describe how AECOM will demonstrate independence of the data validators from the project staff.
  - Define level of data validation required for this project.
  - Electronic validation program/version: EQulS does not validate data. Clarify how EQulS contributes to data validation.
10. UFP-QAPP Worksheet #37 Data Usability Assessment
- In Worksheet 37 define the data quality indicators from Worksheet 28 and how they are calculated.
11. SOPs
- SOP F110 was included twice in the appendix.
  - SGS-Dayton EGN228-08 for sulfides was not included in Worksheet #23. Reconcile.

If you have any questions, please call me at (312) 886-7153.

Sincerely,



Jennifer Knoepfle, Ph.D., P.G.  
Remedial Project Manager

cc (via electronic mail):

Kelly Rodibaugh, UFP-QAPP Reviewer, EPA  
Brian Conrath, Project Manager, IEPA  
Jon Alberg, Senior Principal, AECOM  
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